

## § 3483.5

### **§ 3483.5 Crediting of production toward diligent development.**

(a) For Federal coal leases issued after August 4, 1976, all production after the effective date of the Federal lease shall be credited toward diligent development.

(b) For Federal coal leases issued prior to August 4, 1976, all production after the effective date of the first lease readjustment after August 4, 1976, shall be credited toward diligent development.

(c) For Federal coal leases issued prior to August 4, 1976, that have not been readjusted after August 4, 1976, if the operator/lessee has elected under § 3483.1 of this title to be subject to the diligent development and continued operation requirements of the rules of this part, all production after the effective date of the operator/lessee's election shall be applied toward diligent development.

(d) For Federal coal leases issued prior to August 4, 1976, that have not been readjusted after August 4, 1976, if the operator/lessee has elected under § 3483.1 of this title to be subject to the diligent development and continued operation requirements of the rules of this part, all production after August 4, 1976, that occurred prior to the effective date of the operator/lessee's election shall be applied toward diligent development if the operator/lessee so requests.

(e) For Federal coal leases issued prior to August 4, 1976, that have been readjusted after August 4, 1976, all production after August 4, 1976, that occurred prior to the effective date of the first lease readjustment after August 4, 1976, shall be applied toward diligent development if the operator/lessee so requests. Such a request shall comply with the election application provisions at § 3483.1(b)(1) of this title. Any production after such readjustment shall be applied toward diligent development pursuant to paragraph (b) of this section.

(f) For Federal coal leases issued prior to August 4, 1976, that are governed by the Federal lease clauses which describe the minimum production requirements until the first lease readjustment after August 4, 1976, no production prior to the effective date

## 43 CFR Ch. II (10–1–06 Edition)

of that first Federal lease readjustment shall be applied toward diligent development.

(g) For LMU's, any production credited under the rules of this part to a Federal lease prior to its inclusion in the LMU shall be applied toward diligent development for the LMU.

### **§ 3483.6 Special logical mining unit rules.**

(a) Production anywhere within the LMU, of either Federal or non-Federal recoverable coal reserves or a combination thereof, shall be applied toward satisfaction of the requirements of the rules of this part for achievement of diligent development and continued operation for the LMU.

(b) The dates for submission of a resource recovery and protection plan and achievement of diligent development shall not be changed by any enlargement or diminution of the LMU.

## **Subpart 3484—Performance Standards**

### **§ 3484.1 Performance standards for exploration and surface and underground mining.**

The following performance standards shall apply to exploration, development, production, resource recovery and protection, MER, and preparation and handling of coal under Federal leases and licenses, and LMU's.

(a) *Performance standards for exploration.* (1) The operator/lessee shall comply with the standards of the rules of this part and with all applicable requirements of the surface management agency, 30 CFR 815.15, or an approved State program.

(2) The operator/lessee, if required by the authorized officer, shall set and cement casing in the hole and install suitable blowout prevention equipment when drilling on lands valuable or prospectively valuable for oil, gas, or geothermal resources.

(3) All exploration drill holes must be capped with at least 5 feet of cement and plugged with a permanent plugging material that is unaffected by water and hydrocarbon gases and will prevent the migration of gases and water in the drill hole under normal hole pressures. For exploration holes drilled deeper

than stripping limits, the operator/lessee, using cement or other suitable plugging material approved by the authorized officer, shall plug the hole through the thickness of the coal bed(s) or mineral deposit(s) and through aquifers for a distance of at least 50 feet above and below the coal bed(s) or mineral deposit(s) and aquifers, or to the bottom of the drill hole. A lesser cap or plug may be approved by the authorized officer. Exploration activities shall be managed to prevent water pollution and mixing of ground and surface waters and ensure the safety of people, livestock, and wildlife.

(4) The operator/lessee shall retain for 1 year, unless a shorter time period is authorized by the authorized officer, all drill and geophysical logs and shall make such logs available for inspection or analysis by the authorized officer, if requested. The authorized officer, at his discretion, may require the operator/lessee to retain representative samples of drill cores for 1 year. Confidentiality of such information will be accorded pursuant to the provisions at § 3481.3 of this title.

(5) The operator/lessee may utilize exploration drill holes as surveillance wells for the purpose of monitoring the effects of subsequent operations on the quantity, quality, or pressure of ground water or mine gases only with the written approval of the authorized officer, in consultation with the regulatory authority. The operator/lessee may convert exploration drill holes to water wells only after approval of the operator/lessee's written request by the authorized officer and the surface owner or authorized officer, in consultation with the regulatory authority. All such approvals shall be accompanied by a corresponding transfer of responsibility for any liability including eventual plugging, reclamation, and abandonment. Nothing in this paragraph shall supersede or affect the applicability of any State law requirements for such a transfer, conversion, or utilization as a supply for domestic consumption.

(b) *General performance standards for surface and underground mining—(1) Maximum economic recovery (MER).* Upon approval of a resource recovery

and protection plan for an LMU, or for a Federal lease issued or readjusted after August 4, 1976, the operator/lessee shall conduct operations to achieve MER of the Federal coal. To determine that MER of the Federal coal will be achieved, the authorized officer shall consider the information submitted by the operator/lessee under § 3482.1(c) and/or § 3487.1(c) of this title. The authorized officer may request additional information from the operator/lessee to aid in the MER determination. The operator/lessee shall consider coal preparation operations to avoid the wasting of coal and to encourage the achievement of MER. Federal leases issued prior to August 4, 1976, that have not yet been readjusted after August 4, 1976, shall comply with MLA regarding conservation of the recoverable coal reserves and other resources.

(2) Diligent development, continued operation, advance royalty, and 3-year resource recovery and protection plan submission requirements are addressed at §§ 3483.1 through 3483.6 of this title.

(3) *Unexpected wells.* The operator/lessee shall notify the authorized officer promptly if operations encounter unexpected wells or drill holes which could adversely affect the recovery of coal during mining operations, and shall take no further action that would disturb such wells or drill holes without the approval of the authorized officer.

(4) *Resource recovery and protection.* The operator/lessee shall conduct efficient operations to recover the recoverable coal reserves; prevent wasting and conserve the recoverable coal reserves and other resources; prevent damage or degradation to coal-bearing or mineral-bearing formations; and ensure that other resources are protected upon abandonment.

(5) *Release of lease bond.* Subsequent to permanent abandonment of mining operations, the authorized officer will determine if the operator/lessee has met obligations required under the Federal lease for resource recovery and protection, and will determine if the operator/lessee has met the Federal

lease requirements pertaining to rentals and royalties. The authorized officer will make appropriate recommendations to the authorized officer for reduction or termination of the Federal lease bond.

(c) *Performance standards for underground mines*—(1) *Underground resource recovery.* Underground mining operations shall be conducted so as to prevent wasting of coal and to conserve recoverable coal reserves consistent with the protection and use of other resources. No entry, room, or panel workings in which the pillars have not been completely mined within safe limits shall be permanently abandoned or rendered inaccessible, except with the prior written approval of the authorized officer.

(2) *Subsidence.* The operator/lessee shall adopt mining methods which ensure proper recovery of recoverable coal reserves under MLA, as determined by the authorized officer. Operators/lessees of underground coal mines shall adopt measures consistent with known technology in order to prevent or, where the mining method used requires subsidence, control subsidence, maximize mine stability, and maintain the value and use of surface lands consistent with 30 CFR 784.20 and 817.121, 817.122, 817.124, and 817.126, or applicable requirements of an approved State program. Where pillars are not removed and controlled subsidence is not part of the resource recovery and protection plan, pillars of adequate dimensions shall be left for surface stability, giving due consideration to the thickness and strength of the coal beds and the strata above and immediately below the coal beds.

(3) *Top coal.* Top coal may be left in underground mines only upon approval by the authorized officer. The determination of mining height in thick coal beds will take into consideration safety factors, available equipment, overall coal bed thickness, and MER. The bottom coal left, if determined by the authorized officer to be of a minable thickness, should be maintained at a uniform thickness to allow recovery in the future as new technology is developed and economics allow.

(4) *Multiple coal bed mining.* (i) In general, the recoverable coal reserves in

the upper coal beds shall be mined before the lower coal beds; simultaneous workings in each upper coal bed shall be kept in advance of the workings in each lower coal bed. The authorized officer may authorize mining of any lower coal beds before mining the upper coal bed(s) only after a technical justification, submitted to the authorized officer by the operator/lessee, shows that recovery of all coal bed(s) will not be adversely affected.

(ii) In areas subject to multiple coal bed mining, the protective barrier pillars for all main and secondary development entries, main haulageways, primary aircourses, bleeder entries, and manways in each coal bed shall be superimposed regardless of vertical separation or rock competency; however, modifications and exceptions to, or variations from, this requirement may be approved in advance by the authorized officer.

(5) The authorized officer shall approve the conditions under which an underground mine, or portions thereof, will be temporarily abandoned, pursuant to the rules of this part.

(6) *Barrier pillars left for support.* (i) The operator/lessee shall not, without prior consent of the authorized officer, mine any recoverable coal reserves or drive any underground workings within 50 feet of any of the outside boundary lines of the federally leased or licensed land, or within such greater distance of said boundary lines as the authorized officer may prescribe with consideration for State or Federal environmental or safety laws. The operator/lessee may be required to pay for unauthorized mining of barrier pillars. The authorized officer may require that payment shall be up to, and include, the full value of the recoverable coal reserves mined from the pillars. The drilling of any lateral holes within 50 feet of any outside boundary shall be done in consultation with the authorized officer.

(ii) If the coal in adjoining premises has been worked out, an agreement shall be made with the coal owner prior to the mining of the coal remaining in the Federal barrier pillars which otherwise may be lost. If the water level beyond the pillar is below the operator/lessee's adjacent operations, and all

the safety factors have been considered, the operator/lessee, on the written order of the authorized officer, shall mine out and remove all available Federal recoverable coal reserves in such barrier if it can be mined without undue hardship to the operator/lessee; with due consideration for safety; and pursuant to existing mining, reclamation, and environmental laws and rules. Either the operator/lessee or the authorized officer may initiate the proposal to mine coal in a barrier pillar.

(7) The abandonment of a mining area shall require the approval of the authorized officer.

(d) *Performance standards for surface mines.* (1) Pit widths for each coal bed shall be engineered and designed so as to eliminate or minimize the amount of coal fender to be left as a permanent pillar on the spoil side of the pit.

(2) The amount of bottom or rider coal beds wasted in each pit will be minimized consistent with individual mine economics and the coal quality standards that must be maintained by the operation.

(3) The abandonment of a mining area shall require the approval of the authorized officer.

(4) If a coal bed exposed by surface mining or an accumulation of slack coal or combustible waste becomes ignited, the operator/lessee shall immediately take all necessary steps to extinguish the fire and protect the remaining coal.

(5) The authorized officer shall approve the conditions under which a surface mine, or portions thereof, will be temporarily abandoned, pursuant to the rules of this part.

(6) *Barrier or boundary coal.* The operator/lessee shall be encouraged by the authorized officer, in the interest of conservation of recoverable coal reserves and other resources, to mine coal up to the Federal lease or license boundary line; provided that, the mining is in compliance with existing State and Federal mining, environmental and reclamation laws and rules, the mining does not conflict with existing surface rights, and the mining is carried out without undue hardship to the operator/lessee and with due consideration for safety.

(e) *Performance standards for auger mines.* (1) If auger mining is proposed, the authorized officer shall take into account the percentage of recovery, which in general shall exceed 30 percent, and the probable effect on recovering the remaining adjacent recoverable coal reserves by underground mining. If underground mining from the highwall or outcrop is contemplated in the foreseeable future, auger mining may not be approved if underground mining would ensure greater recovery of the unmined recoverable coal reserves. Where auger mining is authorized, the authorized officer will require a sufficient number and size of pillars at regular intervals along the highwall or outcrop to ensure access to the unmined recoverable coal reserves.

(2) A plan for recovery of recoverable coal reserves by auger methods shall be designed to achieve MER.

(3) Auger mining must comply with the rules of this part, and 30 CFR Chapter VII or applicable requirements of an approved State program.

[47 FR 33179, July 30, 1982; 47 FR 53366, Nov. 26, 1982. Redesignated at 48 FR 41589, Sept. 16, 1983]

#### § 3484.2 Completion of operations and permanent abandonment.

(a) Before permanent abandonment of exploration operations, all openings and excavations shall be closed, backfilled, or otherwise permanently dealt with in accordance with sound engineering practices and according to the approved exploration plan. Drill holes, trenches, and other excavations for exploration shall be abandoned in such a manner as to protect the surface and not endanger any present or future underground operation, or any deposit of coal, oil, gas, mineral resources, or ground water. Areas disturbed by exploration operations will be graded, drained, and revegetated.

(b) Upon permanent abandonment of mining operations, the authorized officer will require that the unmined recoverable coal reserves and other resources be adequately protected. Upon completion of abandonment, the authorized officer will inform the responsible office of the surface managing agency and regulatory authority as to whether the abandonment has been